

EFFICIENT USE OF WAFER AREA WITH DEVICE UNDER THE PAD APPROACH

ABSTRACT

5 More efficient use of silicon area is achieved by incorporating an active device beneath a pad area of a semiconductor structure. The pad area includes a substrate having a first metal layer above it. A second metal layer is below the first metal layer. The active device resides in the substrate below the second metal layer. A layer of dielectric separates the first and second metal layers. A via within the dielectric layer electrically couples the first and second metal layers. A via connects to the active component. Subsequent metal layers can be arranged between the first and second metal layers.